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DEPARTMENT OF STATE LANDS

MARC RACICOT, GOVERNOR
P.O. BOX 201601
STATE OF MONTANA
(406) 444-2074
1625 ELEVENTH AVENUE
HELENA, MONTANA 59620-1601

May 25, 1993

Dear Reader:

Enclosed for your review is an Environmental Assessment (EA) prepared by the Department of State Lands (DSL). The EA evaluates a proposal by Conda Mining Inc. to modify operating permit 00148 by activating a pumping system that would pump water from a well near Big Pipestone Creek and from the creek it self to the Pipestone Quarry operation north of the town of Pipestone.

Public comment on this EA will be received by the DSL until 5:00 p.m. February 26, 1993. Comments should be about the adequacy of the EA in assessing issues, new information not considered that may influence the analysis, and clarification. Comments should be specific. The DSL will use these comments and staff responses, the EA, and the application to make a final decision on the permit. The decision may be to approve the proposal as modified by reviews, deny the proposal or approve the proposal with additional modifications.

Comments will be accepted by phone (406) 444-2074, or by written comments directed to:

Bob Winegar
Montana Dept. of State Lands
Capitol Station
Helena, MT 59601

Thank you for your time and consideration. Please call if you have any questions.

Sincerely,

Bob Winegar

Robert C. Winegar
Program Supervisor
Hard Rock Bureau
Reclamation Division

/etc

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HELENA, MONTANA 59620

PLEASE RETURN

ENVIRONMENTAL ASSESSMENT

APPLICANT: Conda Mining Inc.
TYPE OF OPERATION: Quarry
LOCATION: NE 1/4 Sec. 20, T2N, R5W COUNTY: Jefferson

PERSON PREPARING E.A.: Joe Gurrieri
APPLICATION COMPLETE: May 7, 1993 (Date) E.A. COMPLETE: May 24, 1993 (Date)

				POTENTIAL IMPACTS		
	A	B	C	LONG TERM	SHORT TERM	AMPLIFICATION
PHYSICAL ENVIRONMENT						
1. TOPOGRAPHY			X			
2. GEOLOGY; Stability			X			
3. SOILS; Quality, Distribution			X			
4. WATER; Quality; Quantity; Distribution			X		X	X
5. AIR; Quality			X			
6. UNIQUE, ENDANGERED, FRAGILE, or LIMITED environmental resources			X			
BIOLOGICAL ENVIRONMENT						
1. TERRESTRIAL, AVIAN, and AQUATIC; species and habitats			X			X
2. VEGETATION; quantity, quality, species			X			
3. AGRICULTURE; grazing, crops production			X			
HUMAN ENVIRONMENT						
1. SOCIAL; structures and mores			X			
2. CULTURAL uniqueness, diversity			X			
3. POPULATION; quantity and diversity			X			
4. HOUSING; quantity and distribution			X			
5. HUMAN HEALTH & SAFETY			X			
6. COMMUNITY & PERSONAL INCOME			X			

				POTENTIAL IMPACTS		
	A	B	C	LONG TERM	SHORT TERM	AMPLIFICATION
7. EMPLOYMENT; quantity and distribution			X			
8. TAX BASE; local and state tax revenue			X			
9. GOVERNMENT SERVICES; demand			X			
10. INDUSTRIAL, COMMERCIAL and AGRICULTURAL activities			X			
11. HISTORICAL and ARCHAEOLOGICAL			X			
12. AESTHETICS			X			
13. ENVIRONMENTAL PLANS and GOALS; local and regional			X			
14. DEMANDS on ENVIRONMENTAL RESOURCES of land, water, air and energy			X			
15. TRANSPORTATION; networks and traffic flows			X			

CUMMULATIVE IMPACTS: Other activities are absent in the area, except for the highway maintenance shop. This constitutes a negligible cummulative effect with the mining.

PUBLIC INVOLVEMENT: Comments are solicited for proposal and EA until June 11, 1993.

ALTERNATIVES CONSIDERED: Approve as proposed, Disapprove (no action).

COMPLIANCE STATUS: No noncompliance history.

RECOMMENDATIONS CONCERNING PREPARATION OF AN EIS: An EIS is not necessary at this level of disturbance, no significant impacts.

OTHER GROUPS OR AGENCIES CONTACTED OR WHICH MAY HAVE OVERLAPPING JURISDICTION:

Bureau of Land Management, Department of Natural Resources and Conservation

INDIVIDUALS OR GROUPS CONTRIBUTING TO THIS EA: Joe Gurrieri, Bob Winegar (DSL)
Greg Vanvoast (DNRC)

A: Significant Unavoidable Impacts
B: Insignificant as a result of conditioned mitigation
C: Insignificant as proposed

Robert C. Winegar
Signature

CONDA MINING INC.
Modifications to Operating Permit

BACKGROUND

History: Conda Mining Inc. (CMI) is developing a rock quarry in Jefferson County, Montana. The original operating permit was issued December 11, 1992 after an Environmental Assessment (EA) was prepared (May, 1992). A supplemental EA was issued on January 25, 1993 that analyzed a proposal to incorporate facilities that would allow CMI to produce a washed product.

Current Proposal: CMI has submitted a proposal to the Montana Department of State Lands (DSL) requesting the use of a well on Chuck and Lee Baker's property that would be used for dust control and ballast product washing. CMI also proposes to use water from Big Pipestone Creek at a point of diversion near the well. Water would be pumped from the creek during the period March 1 through June 1 at a maximum rate of 60 gpm. Water would be pumped from Big Pipestone Creek during the high runoff period as a means of reducing the impact of pumping from the well on the available groundwater supply. The water well would then be used for providing make-up water.

RECLAMATION

The existing reclamation plan would not be changed by these modifications. At final reclamation the well would be left intact for use by Chuck and Lee Baker. The Big Pipestone Creek pump and all pipelines would be removed.

AMPLIFICATION OF ENVIRONMENTAL FACTORS

Water

CMI would be required to be in possession of all water rights or permits necessary to legally appropriate the water they intend to impound or use. A well on Chuck and Lee Baker's property and a pumping station on Big Pipestone Creek would be used to provide the required water.

An estimated five acre-feet per year at current product production rates would be pumped from the well. Water would be pumped from the well through a three-inch PVC water line to a storage pond at the quarry site. The water well would be pumped at a maximum of 20 gallons per minute, for a maximum duration of 12 hours, with a minimum 24-hour recovery period between pumping episodes. This pumping schedule was determined through a pumping test and groundwater modeling, and should result in negligible drawdown affects on the surrounding domestic wells (Willis Weight report, Groundwater Model and Final Recommendations, April 19, 1993). The pumping test confirmed that there is a connection in the fracture system between the Conda well and the Graves and Baker wells; however the connection is somewhat limited.

A groundwater modeling computer program was used to evaluate the impacts caused by withdrawal of groundwater by CMI on local neighboring wells. The model was calibrated by comparing the results of a computer simulated pump test to data generated during the actual March 20th pump test. Predictive simulations were performed to determine the area of influence of the Conda well under various pumping and recovery scenarios. The modeling indicated that with 12 hours of pumping, a recovery period of 36 hours is acceptable for no effect on surrounding wells and a recovery period of 24 hours shows limited effect. Limited effect means approximately 0.5 feet of drawdown in the Graves and Baker wells. If the Conda well causes unacceptable drawdown in the neighboring wells, adjustments in the pumping schedule would be made by DSL.

A log showing pumping hours, pumping rate, and accumulated gallons pumped would be maintained for the water well. Also a water level monitoring schedule would be established for the Baker and Graves wells. A quarterly report that includes the well monitoring data and the pumping schedule logs would be submitted to DSL. The well monitoring schedule would be adjusted if necessary after the first year.

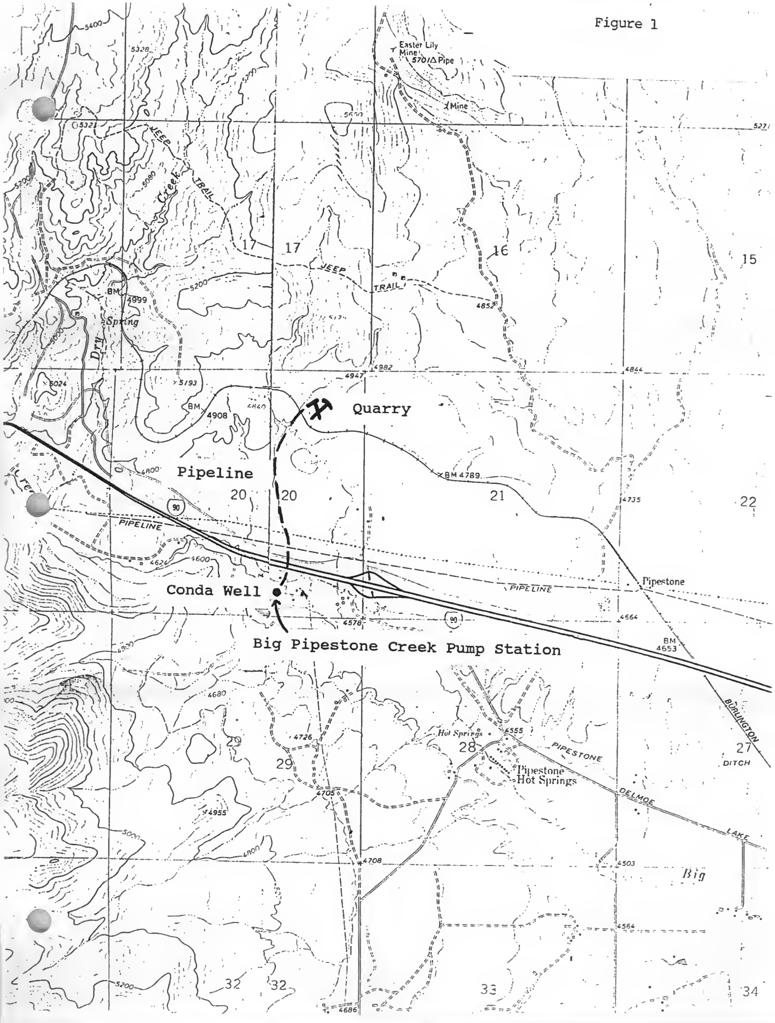
CMI would pursue the acquisition of legal water rights from Big Pipestone Creek. If the rights are obtained, CMI would pump water from Big Pipestone Creek using the same water line. The point of diversion would be near the well. Water would be pumped from the creek during the period March 1 through June 1 when streamflow is highest and

fewer users are withdrawing water for irrigation. The maximum pumping rate from the creek would be 60 gpm. A flow of about 2300 gpm was measured in Big pipestone Creek on May 5, 1993. The proposed rate of withdrawal should not adversely affect streamflow in the high runoff, Spring season. Water would be pumped from Big Pipestone Creek during the high runoff period as a means of further reducing the impact of well pumping on the available groundwater supply. The water well would be used for providing make-up water.

The water line would be visually monitored during pumping so that the pump can be immediately shut off should a break occur in the line. There is a natural sediment retention basin south of the interstate that would collect any sediment resulting from a break in the water line. A gate valve and a check valve would be installed between the well and the manifold connecting the water line to the Big Pipestone Creek pump. This would preclude any creek water from entering the well. A flow and accumulator meter would be installed at the well to monitor pumping rate and usage. The meter would be encased to protect it from tampering and still allow visual observation.

The fishery of Big Pipestone Creek will not be effected by removing 60 gpm during the high flow season which was measured at 2300 gpm by Department of State Lands personnel.

Figure 1


Quarry
Pipeline
Conda Well
Big Pipestone Creek Pump Station
Easter Lily Mine
5701 Pipe
Mine
JEEP TRAIL
Dry Creek
Spring
BM 4999
BM 4908
BM 4789
BM 4653
PIPELINE
90
Pipestone
Hot Springs
Pipestone Hot Springs
PIPESTONE DELMOE LAKE
BURLINGTON
DITCH
Big
5400
5328
5323
5200
5080
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5193
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4840
4800
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